



**Case story #6**

<b>INDUSTRY</b>	AGROCHEMICAL PESTICIDE
<b>MEDIA – COND</b>	HCl, chlorine, water, solvent 65°C
<b>MATERIALS</b>	GT FLON
<b>EQUIPMENT</b>	SHELL & BLOCKS CONDENSER
<b>YEAR</b>	2014

A Chinese state own company is manufacturing pesticide with a process using chlorine gas. Since years they use Chinese local graphite equipment of 20m<sup>2</sup> HTA made with graphite impregnated with phenolic resin. Every 3 months equipment fails and need to be replaced. The maintenance cost and the difficulties to dismantle the equipment push the customer to find an alternative to condense the vapor coming from their reactor.

GT proposed a condenser with process holes of 6mm adapted to the low flow of customer. The HTA proposed was 1/7<sup>th</sup> of the previous equipment (3.3 m<sup>2</sup>) which worried customer regarding future performances.

The equipment was manufactured using GT-FLON grade which has outstanding corrosion resistance, much better than phenolic resin impregnation. GT-FLON is perfect choice when strong oxidizing agent is in the process.

Customer installed the equipment which was performing very well. After 8 months of operation, they decided to move this equipment to another location of their process with a higher concentration of chlorine (up to 65%). Several months later, the equipment do not show any sign of corrosion.

Customer is planning to replace their phenolic resin impregnated graphite grade by GT-FLON grade to reduce their maintenance cost.

The other alternative would be to choose high nickel alloy material but with a higher cost. GT-FLON is most of the time very competitive against high cost metallic equipment.

Since 2014 (in 3 years) customer already procured 6 equipment to replace the competition equipment.



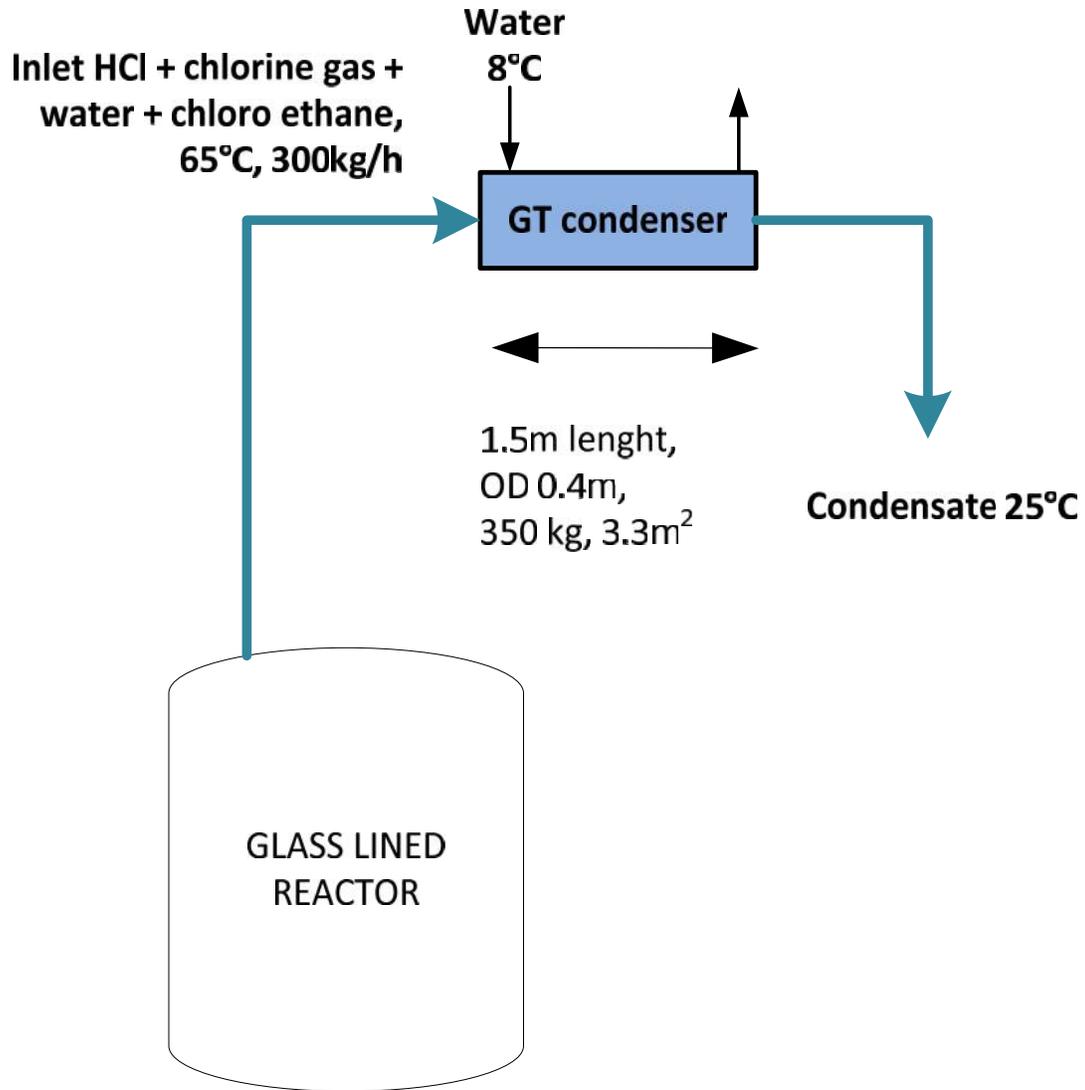
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**Sketch principle**



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